Caucasiana **1**, 2022, 29–39 | DOI 10.3897/caucasiana.1.e85239 Ilia State University, Tbilisi

CAUCASIANA
Journal on the biodiversity of the Caucasus and the adjacent regions

New records of Coleoptera from Lagodekhi Protected Areas, with new records for Georgia (Sakartvelo)

George Japoshvili[1,2], Jacek Hilszczański[3], Adam Byk[4], Tomasz Jaworski[3], Krzysztof Łoś[5], Jerzy Borowski[4], Grzegorz Tarwacki[3], Jacek Piętka[4], Radosław Plewa[3]

1 *Invertebrate Research Center, Tetritsklebi, Telavi – 2200, Georgia*
2 *Institute of Entomology, Agricultural University of Georgia, Tbilisi – 0159, Georgia*
3 *Department of Forest Protection, Forest Research Institute, Sękocin Stary 05-090, Poland*
4 *Department of Forest Protection, Institute of Forest Sciences, Warsaw University of Life Sciences – SGGW, Warsaw 02-776, Poland*
5 *Al. Chopina 102a, 05-092 Łomianki Dolne, Poland*

http://zoobank.org/33FEE531-431A-43E6-B482-C86A91C04F72

Corresponding author: George Japoshvili (g.japoshvili@agruni.edu.ge)

Academic editor: Levan Mumladze ♦ **Received:** 14 April 2022 ♦ **Accepted:** 26 September 2022 ♦ **Published:** 25 October 2022

Abstract

During this survey, 195 species of coleopterans have been recorded from the Lagodekhi Protected Areas (LPA). Thirty families are recorded for the first time from this area, of which Rhysodidae, Sphindidaeand, and Thymalidae are new for Georgia. One hundred fifty-seven species are new to LPA and 66 of them are new country records.

Key words

Beetles, South Caucasus, Faunistics, Biodiversity Inventory

Introduction

The Lagodekhi Natural Reserve was established in 1912 (thanks to the efforts of the Polish forester and naturalist Ludwik Młokosiewicz (Chodubski 1982)), and is located in the extreme north-eastern part of Georgia (southern slopes of the Caucasus Mountains) with a range of altitudes from 590 to 3500 m above sea level. The Lagodekhi Protected Areas (LPA) include the Lagodekhi Natural Reserve (19,749 ha) and a Managed Reserve (4702 ha) (APA 2016). The LPA keeps one of the world's best-preserved primeval deciduous forest habitats (Fig. 1A). The first summarized paper about the insect diversity of Lagodekhi Natural Reserve was given by Kobakhidze (1956), listing 632 insect taxa (Japoshvili et al. 2022). A very recent update about the insect diversity of LPA provides 1790 species records for LPA (Mumladze et al. 2017; Japoshvili 2017, 2022; Japoshvili et al. 2022). This makes the LPA the best studied protected area (by means of insect diversity) in the Caucasus Region. However, the true diversity of insect species in LPA is still far from being fully inventoried. For instance, materials collected in 2014 revealed 313 new species records for the family Ichneumonidae (Hymenoptera) for the LPA, including 209 new country records (Riedel et al. 2018). The coleopteran insects of LPA are relatively well known thanks to the old works by a number of authors (Chantladze 2000; Jambazishvili 2000; Cholokava et al. 2002; Javelidze et al. 2002; Merkviladze and Kvavadze 2002; Reck and Chaladze 2004; Cholokava 2008). However, Coleoptera, which is one of the most specious orders of insects, is also supposedly represented by many more species in LPA than we know today. A recent work by Gul Aslan et al. (2017) who studied malaise trap material of leaf beetles (Chrisomelidae) collected in 2014, reported 48 species with 14 new country records. Here we

Copyright *Japoshvili et al.* This is an open access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

provide inventory data for a number of different families of Coleoptera, collected within the same malaise trap program mentioned above, and supplemented by other materials collected in recent years.

Materials and methods

The materials represented in the present article were collected by the first author using malaise traps (MT) operating in LNP during the entire growing season from April to November of 2014. However, at high altitudes (H5, H6 – see below), collecting began later (5 May 2014; alpine 23 May 2014) and was completed earlier (6 October 2014), due to climate conditions at higher altitudes. MTs (Fig. 1B) were placed at the following sites: H1: low-altitude forest, 666 m above sea level (a.s.l.) (N41.852483, E46.287767); H2: mid-altitude forest, 847 m a.s.l. (N41.854183, E46.292733); H3: high-altitude forest, 1351 m a.s.l. (N41.871467, 46.311533); H4: subalpine forest, 1841 m a.s.l. (N41.882733, 46.32185); H5: subalpine meadow and scrubland, 2230 m a.s.l. (N41.89805, E46.333883); H6: alpine zone, 2559 m a.s.l. (N41.906183, E46.3334). Before being sorted, samples were collected every 10 (± 2) days and kept in 96% ethanol. Additionally, 12-funnel traps (FT hereafter), from 1 May to 5 August 2014, and Moericke traps (yellow pan traps; hereafter - PT), from 1 May to 14 June 2014, have been used to supplement the MT collection (Fig. 1C). FTs and PTs were set up in the same localities as MTs. Finally, our material also contains data obtained using occasional hand collection (HC hereafter) during the various field research campaigns in LPA during the last decade. In such cases, geographic coordinates are given under each of the species listed below.

The following authors have helped to identify materials: S. Mazur (Histeridae), J. Borowski (Ptinidae), W.H. Rücker and R. Plewa (Latridiidae), A. Lasoń (Nitidulidae), A. Melke (Staphylinidae), R. Królik (Ciidae and Buprestidae), M. Wanat (Curculionidae (without Scolytinae)), J. Mertlik and G. Platia (Elateridae), and T. Gazurek (various taxa). The rest of the material was identified by the authors. All new records for LPAs are marked with one asterisk (*) and new country records with double asterisks (**). New country records were verified mainly based on the Catalogue of Palaearctic Coleoptera (Löbl and Smetana 2006, 2007, 2011, 2013; Löbl and Löbl 2015, 2016, 2017; Danilevsky 2020; Iwan and Löbl 2020). In cases when we were not able to find an original source for the Georgian distribution of a particular taxon with no later confirmation, we did not take into consideration such records. The voucher materials are placed in the author's collections. The abbreviated names of the collectors are as follows: George Japoshvili – GJ; Radosław Plewa – RP; Jacek Hilszczański – JH; Jerzy Borowski – JB; Jacek Piętka – JP; Adam Byk – AB; Tomasz Jaworski – TJ; Krzysztof Łoś – KL. If the material was gathered by a group of people, we use the abbreviation IPT (IBL: Forest Research Institute (Instytut Badawczy Lenictwa) Polish Team). Material for correct terminology was checked according to the Global Biodiversity Information Facility (GBIF 2022).

Results

In the species list given below, the information is provided in the following order: the number of specimens, sampling locality, sampling date, collection method, and collectors.

Order: Coleoptera

Family: Anthribidae*
Genus: *Dissoleucas* Jordan, 1925
Dissoleucas niveirostris (Fabricius, 1798)
- GEORGIA • 2 inds; H1; 3.05.2014; MT. 1 ind; H1; 15-25.05.2014; MT. 1 ind; H3; 14.06-5.07.2014; FT; leg: IPT.

Genus: *Platyrhinus* Clairville, 1798
Platyrhinus resinosus (Scopoli, 1763)**
- GEORGIA • 1 ind; N41.84, E46.28; 29.05.2012; HC; leg: RP.

Genus: *Platystomos* Schneider, 1791
Platystomos albinus (Linnaeus, 1758)
- GEORGIA • 1 ind; H1; 3.05.2014; MT.

Genus: *Pseudeuparius* Jordan, 1914
Pseudeuparius sepicola (Fabricius, 1793)
- GEORGIA • 1 ind; H3; 4.05.2014; MT. 1 ind; N41.84, E46.28; 4.05.2014; HC; leg: RP.

Genus: *Choragus* Kirby, 1819
Choragus sheppardi (Kirby, 1819)
- GEORGIA • 2 inds; H2; 5-14.07.2014; FT; leg: IPT.

Family: Biphyllidae*
Genus: *Diplocoelus* Guérin-Méneville, 1838
Diplocoelus humerosus Reitter, 1876
- GEORGIA • 2 inds; H1; 5-15.07.2014; MT.

Family: Buprestidae*
Genus: *Anthaxia* Eschscholtz, 1829
Anthaxia signaticollis Krynicki, 1832
- GEORGIA • 1 ind; H2; 1.05-14.06.2014; PT; leg: IPT.

Genus: *Coraebus* Laporte de Castelnau & Gory, 1839
Coraebus rubi (Linnaeus, 1767)
- GEORGIA • 1 ind; N41.85, E46.23; 2.07.2011; HC; leg: JH.

Genus: *Dicerca* Eschscholtz, 1829
Dicerca chlorostigma Mannerheim, 1837
- GEORGIA • 1 ind; N41.85, E46.28; 30.05.2012; HC; leg: JH. 1 ind; H3; 25.05-4.06.2014; MT. 1 ind; H3; 15-25.06.2014; MT. 1 ind; H1; 26.07-5.08.2014; MT. 1 ind; H1; 5-15.08.2014; MT.

Genus: *Chrysobothris* Eschscholtz, 1829
Chrysobothris affinis (Fabricius, 1794)
- GEORGIA • 1 ind; H5; 15-25.06.2014; MT.

Genus: *Lamprodila* Motschulsky, 1860
Lamprodila rutilans (Fabricius, 1777)
- GEORGIA • 1 ind; 2.07.2011; HC; leg: JH.

Family: Carabidae
Genus: *Carabus* Linnaeus, 1758
Carabus septemcarinatus Motschulsky, 1840*
- GEORGIA • 1 ind; N41.85, E46.28; 1.05.2014; HC; leg: KL.

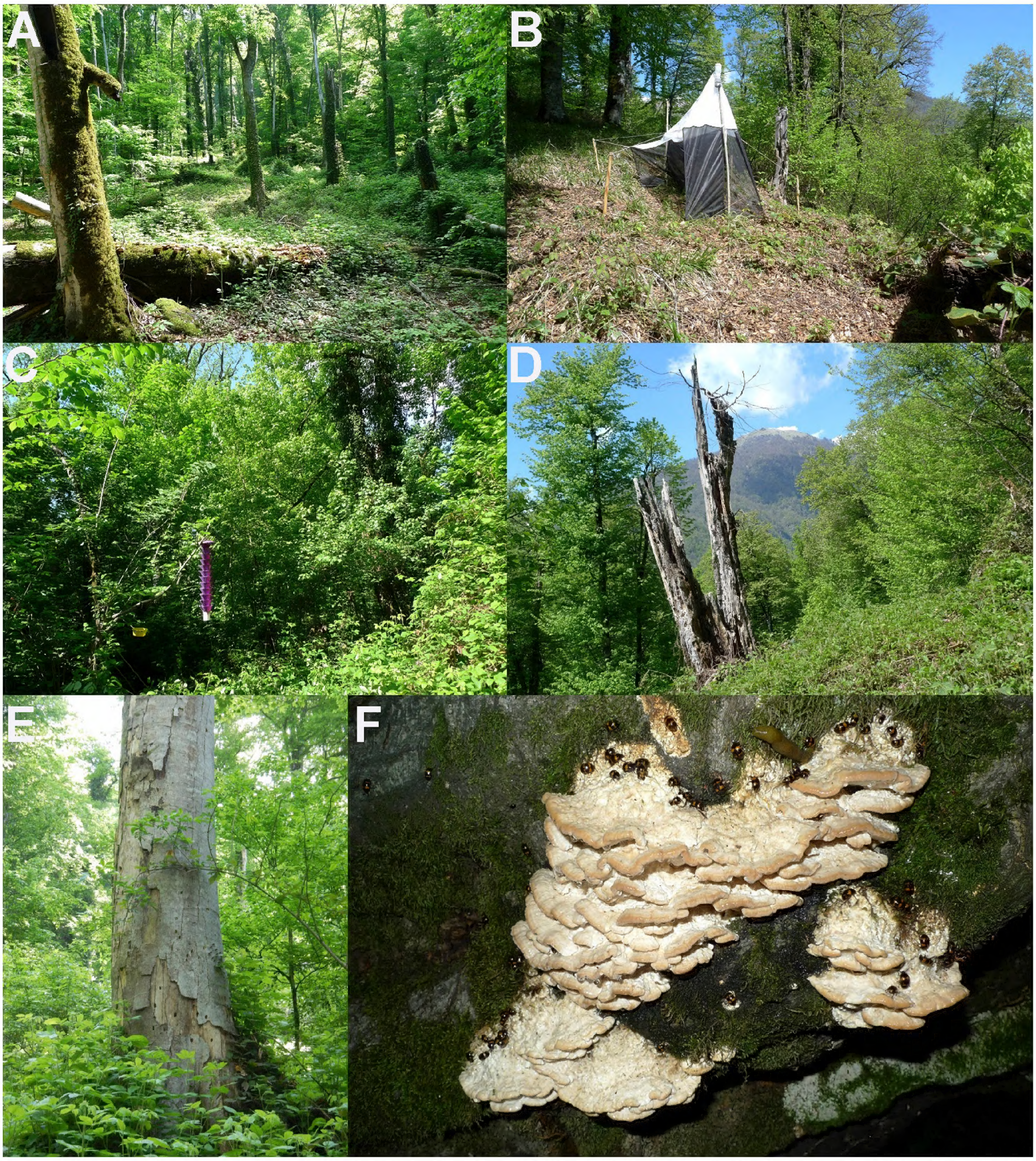

Figure 1. A – Forest habitat near the main entrance of Lagodekhi National Park; **B** – Malaise trap in the mountain middle zone in a mixed mountain forest, with *Fagus orientalis* as a dominant tree species (Fageto-galiosum), 1351 m a.s.l.; **C** – Funnel and yellow pan traps, close to river along the road from main entrance to Lagodekhi National Park; **D** – Strongly decomposed beech snag; **E** – Snag of beech with emergence holes of *Rhaesus serricollis* (Motschulsky, 1838) (Cerambycidae); **F** – Bracket fungus with beetles of *Diaperis boleti* (Linnaeus, 1758) (Tenebrionidae).

C. staehlini Adams, 1817

- GEORGIA • 1 ind; H1; 17-23.06.2015; HC; leg: GJ.

Genus: *Tachyta* Kirby, 1837

Tachyta nana (Gyllenhal, 1810)

- GEORGIA • 3 inds; H1; 23.04-3.05.2014; MT. 1 ind; H1; 3.05.2014; MT.

Genus: *Aegosoma* Audinet-Serville, 1832

Aegosoma scabricorne (Scopoli, 1763)

- GEORGIA • 1 ind; N41.84, E46.28; 30.04.2014; at night on snag; HC; leg: JH; 2 inds; N41.84, E46.28; 17-21.07.2019; HC; leg: JB, AB, JP.

Family: **Cerambycidae**

Genus: *Agapanthia* Audinet-Serville, 1835

Agapanthia lederi Ganglbauer, 1884*

- GEORGIA • 1 ind; H6; 25.06-5.07.2014; MT.

Genus: *Alosterna* tabacicolor (Degeer, 1775)

Alosterna tabacicolor subvittata Reitter, 1885*
- GEORGIA • 1 ind; H3; 15-25.06.2014; MT. 1 ind; H3; 4-14.06.2014; MT. 1 ind; H3; 14.06-5.07.2014; FT; leg: IPT.

Genus: *Anaglyptus* Mulsant, 1839
Anaglyptus simplicicornis Reitter, 1906*
- GEORGIA • 2 inds; H3; 4-14.06.2014; FT. leg: IPT.

Genus: *Aromia* Audinet-Serville, 1834
Aromia moschata ambrosiaca Steven, 1809
- GEORGIA • 7 inds; N41.84, E46.28; 17-21.07.2019; HC; leg: JB, AB, JP.

Genus: *Cerambyx* Linnaeus, 1758
Cerambyx cerdo acuminatus Motschulsky, 1853
- GEORGIA • 4 inds; N41.84, E46.28; 17-21.07.2019; HC; leg: JB, AB, JP.

Genus: *Chlorophorus* Chevrolat, 1863
Chlorophorus varius (Müller, 1766)*
- GEORGIA • 1 ind; N41.85, E46.23; 2.07.2011; HC; leg: JH.

Genus: *Clytus* Laicharting, 1784
Clytus schneideri Kiesenwetter, 1879*
- GEORGIA • 3 inds; N41.85, E46.23; 2.07.2011; HC; leg: JH.

Genus: *Cortodera* Mulsant, 1863
Cortodera pumila Ganglbauer, 1882*
- GEORGIA • 1 ind; N41.85, E46.23; 2.07.2011; leg: JH. 2 inds; H3; 4-14.06.2014; FT. 1 ind; H3; 5-15.05.2014; MT. 1 ind; H3; 15-25.05.2014; MT.

Genus: *Exocentrus* Dejean, 1835
Exocentrus adspersus Mulsant, 1846*
- GEORGIA • 1 ind; H3; 4-14.06.2014; FT; leg: IPT. 1 ind; H1; 15-25.07.2014; MT. 1 ind; H3; 14.06-5.07.2014; FT; leg: IPT.

Genus: *Fallacia* Mulsant & Rey, 1863
Fallacia elegans (Faldermann, 1837)*
- GEORGIA • 1 ind; H1; 12-23.04.2014; MT. 1 ind; H3; 15-25.05.2014; MT.

Genus: *Leiopus* Audinet-Serville, 1835
Leiopus femoratus Fairmaire, 1859*
- GEORGIA • 2 inds; H3; 4-14.06.2014; FT; leg: IPT.

L. nebulosus caucasicus Ganglbauer, 1887*
- GEORGIA • 1 ind; H3; 4-14.06.2014; FT; leg: IPT. 1 ind; H3; 15-25.06.2014; MT.

Genus: *Leptura* Linnaeus, 1758
Leptura quadrifasciata lederi Ganglbauer, 1882*
- GEORGIA • 2 inds; N41.85, E46.23; 2.07.2011; leg: JH; 1 ind; H1; 25.06-5.07.2014; MT. 4 inds; H1; 17-21.07.2019; HC; leg: JB, AB, JP.

Genus: *Mesosa* Latreille, 1829
Mesosa curculionoides (Linnaeus, 1760)
- GEORGIA • 1 ind; H1; 15-27.09.2014; MT.

Genus: *Morimus* Brullé, 1832
Morimus verecundus (Faldermann, 1836)*
- GEORGIA • 1 ind; N41.84, E46.28; 30.04.2014; HC; leg: JH. 1 ind; H1; 15-25.06.2014; MT. 1 ind; H1; 5-15.08.2014; MT. 2 inds; H1; 17-21.07.2019; HC; leg: JB, AB.

Genus: *Nathrius* Brethes, 1916
Nathrius brevipennis (Mulsant, 1839)*
- GEORGIA • 2 inds; H3; 4-14.06.2014; FT; leg: IPT.

Genus: *Paraclytus* Bates, 1884
Paraclytus sexguttatus (Adams, 1817)
- GEORGIA • 1 ind; H3; 4-14.06.2014; FT; leg: IPT. 1 ind; H2; 5-15.05.2014; MT. 4 inds; H3; 5-15.05.2014; MT. 1 ind; H4; 5-15.05.2014; MT. 1 ind; H3; 15-25.05.2014; MT. 1 ind; H6; 25.06-5.07.2014; MT.

Genus: *Parmena* Dejean, 1821
Parmena pontocircassica Danilevsky et Miroshnikov, 1985*
- GEORGIA • 1 ind; H3; 4-14.06.2014; MT. 1 ind; H3; 17-21.07.2019; HC; leg: JB.

Genus: *Phymatodes* Mulsant, 1839
Phymatodes femoralis Ménétriés, 1832*
- GEORGIA • 5 inds; H3; 4-14.06.2014; FT; leg: IPT.

Genus: *Prionus* Geoffroy, 1762
Prionus coriarius (Linnaeus, 1758)*
- GEORGIA • 1 ind; N41.85, E46.23; 2.07.2011; HC; leg: JH.

Genus: *Rhagium* Fabricius, 1775
Rhagium fasciculatum Faldermann, 1837*
- GEORGIA • 1 ind; H1; 2-12.04.2014; MT. 3 inds; H1; 12-23.04.2014; MT. 1 ind; H2; 12-23.04.2014; MT. 1 ind; H1; 23.04-3.05.2014; MT. 3 inds; H2; 4.05.2014; MT. 5 inds; H2; 5-15.05.2014; MT. 2 inds; H3; 5-15.05.2014; MT. 2 inds; H4; 5-15.05.2014; MT.

Genus: *Rhaesus* Motschulsky, 1875
Rhaesus serricollis (Motschulsky, 1838)
- GEORGIA • 1 ind; N41.84, E46.28; 30.04.2014; dead on beech snag (Fig. 1D); leg: JH. 1 ind; N41.84, E46.28; 1.05.2014; dead on beech snag; HC; leg: RP. 8 inds; N41.84, E46.28; 17-21.07.2019; HC; leg: JB, AB, JP.

Genus: *Rosalia* Audinet-Serville, 1833
Rosalia alpina (Linnaeus, 1758)
- GEORGIA • 2 inds; H3; 14.07-5.08.2014; FT; leg: IPT. 1 ind; H3; 24.08.2011; HC; leg: GJ. 6 inds; H3; 17-21.07.2019; HC; leg: JB, AB, JP.

Genus: *Rutpela* Nakane & Ohbayashi, 1957
Rutpela maculata manca (Schaufuss, 1863)*
- GEORGIA • 1 ind; H3; 15-25.06.2014; MT.

Genus: *Stenocorus* Geoffroy, 1762*
Stenocorus insitivus insitivus (Germar, 1824)
- GEORGIA • 1 ind; N41.85, E46.29; 17-21.07.2019; HC; leg: AB.

Genus: *Stenostola* Dejean, 1835
Stenostola ferrea (Schrank, 1776)*
- GEORGIA • 1 ind; H1; 12-23.04.2014; MT. 1 ind; H1; 23.04-3.05.2014; MT. 1 ind; H2; 4.05.2014; MT. 1 ind; H2; 5-15.05.2014; MT.

Genus: *Stictoleptura* Casey, 1924
Stictoleptura tonsa (J. Daniel et K. Daniel, 1891)*
- GEORGIA • 1 ind; N41.85, E46.23; 2.07.2011; leg: JH.

Genus: *Stromatium* Audinet-Serville, 1834
Stromatium unicolor (Olivier, 1795)**
- GEORGIA • 2 inds; 17-21.07.2019; HC; leg: JB.

Genus: *Trichoferus* Wollaston, 1854
Trichoferus campestris (Faldermann, 1835)**
- GEORGIA • 1 ind; H3; 4-14.06.2014; FT. leg: IPT.

Genus: *Xylotrechus* Chevrolat, 1860
Xylotrechus arvicola (Olivier, 1795)*
- GEORGIA • 1 ind; H3; 4-14.06.2014; FT; leg: IPT.

X. rusticus (Linnaeus, 1758)
- GEORGIA • 1 ind; N41.85, E46.23; 2.07.2011; HC; leg: JH.

Family: **Cerylonidae***
Genus: *Cerylon* Latreille, 1802
Cerylon ferrugineum Stephens, 1830**
- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT. 2 inds; H2; 1.05-14.06.2014; PT; leg: IPT.

Family: **Ciidae***
Genus: *Cis* Latreille, 1797
Cis festivus (Panzer, 1793)
- GEORGIA • 2 inds; H1; 23.04-3.05.2014; MT. leg: IPT.

C. fusciclavis Nyholm, (1953)**
- GEORGIA • 2 inds; H2; 5-14.07.2014; FT; leg: IPT.

C. rugulosus Mellié, 1849**
- GEORGIA • 3 inds; H1; 23.04-3.05.2014; MT. 10 inds; H1; 1.05-14.06.2014; HC; PT. 1 ind; H1; 15-25.06.2014; MT.

C. tomentosus Mellié, 1849*
- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT. 1 ind; N41.84, E46.28; 17-21.07.2019; HC; leg: AB.

Genus: *Octotemnus* Mellié, 1847
Octotemnus rugosopunctatus Drogvalenko, 2002**
- GEORGIA • 1 ind; H2; 5-14.07.2014; FT; leg: IPT.

Family: Cleridae*
Genus *Opilo* Latreille, 1802
Opilo mollis (Linnaeus, 1758)
- GEORGIA • 3 inds; H3; 4-14.06.2014; FT; leg: IPT. 1 ind; H3; 14.06-5.07.2014; FT; leg: IPT.

Genus: *Thanasimus* Latreille, 1806
Thanasimus formicarius (Linnaeus, 1758)**
- GEORGIA • 1 ind; H3; 5-15.05.2014; MT. 1 ind; H1; 1.05-14.06.2014; HC; PT. 1 ind; H3; 15-25.05.2014; MT.

- The species is enlisted in Georgian Biodiversity Database (Tarkhnishvili and Chaladze 2022), whithout indication of voucher deposition or locality data.

Genus: *Tillus* Olivier, 1790
Tillus elongatus (Linnaeus, 1758) **
- GEORGIA • 1 ind; H3; 15-25.06.2014; MT. 1 ind; H3; 14.06-5.07.2014; FT; leg: IPT.

Family: **Coccinelidae**
Genus: *Chilocorus* Leach, 1815
Chilocorus renipustulatus (Scriba, 1791)*
- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT. 1 ind; N41.84, E46.28; 17-21.07.2019; leg: AB.

Family: **Corylophidae***
Genus: *Arthrolips* Wollaston, 1854
Arthrolips picea (Comolli, 1837)
- GEORGIA • 1 ind; H2; 12-23.04.2014; MT. 2 inds; H1; 23.04-3.05.2014; MT. 6 inds; H1; 1.05-14.06.2014; PT; leg: IPT. 2 inds; H1; 15-27.09.2014; MT.

Family: **Cucujidae***
Genus: *Laemophloeus* Dejean, 1835
Laemophloeus monilis (Fabricius, 1787)**
- GEORGIA • 1 ind; H3; 4-14.06.2014; FT; leg: IPT.

Genus: *Pediacus* Shuckard, 1839
Pediacus dermestoides (Fabricius, 1793)**
- GEORGIA • 1 ind; H1; 2-12.04.2014; MT. 2 inds; H1; 23.04-3.05.2014; MT.

Genus: *Cucujus* Müller, 1764
Cucujus haematodes caucasicus Motschulsky, 1845*
- GEORGIA • 1 ind; H3; 5-15.05.2014; MT.

Family: **Curculionidae**
Genus: *Anisandrus* J.A. Ferrari, 1867
Anisandrus dispar (Fabricius, 1793)**
- GEORGIA • 1 ind; H1; 2-12.04.2014; MT. 1 ind; H1; 3.05.2014; MT. 5 inds; H3; 5-15.05.2014; MT. 1 ind; H4; 5-15.05.2014; MT. 10 inds; H1; 15-25.05.2014; MT. 1 ind; H3; 14.06-5.07.2014; MT. 1 ind; H1; 15-25.08.2014; MT.

Genus: *Hylesinus* J.C. Fabricius, 1802
Hylesinus varius (Fabricius, 1775)**
- GEORGIA • 1 ind; H1; 3.05.2014; MT.

Genus: *Magdalis* E.F. Germar, 1817
Magdalis fallax Kirsch, 1878*
- GEORGIA • 1 ind; H2; 1.05-14.06.2014; PT; leg: IPT.

Genus: *Phloeotribus* P.A. Latreille, 1797
Phloeotribus scarabaeoides (Bernard, 1788)**
- GEORGIA • 1 ind; H1; 23.04-3.05.2014; MT.

Genus: *Platypus* J.F.W. Herbst, 1793
Platypus cylindrus (Fabricius, 1793)**
- GEORGIA • 9 inds; H2; 25.05-4.06.2014; MT. 8 inds; H2; 4-14.06.2014; MT. 1 ind; H3; 14.06-5.07.2014; FT. 4 inds; H1; 15-25.06.2014; MT. 7 inds; H3; 15-25.06.2014; MT. 1 ind; H1; 25.06-5.07.2014; MT. 3 inds; H1; 5-15.07.2014; MT. 1 ind; H1; 15-25.07.2014; MT. 1 ind; H1; 26.07-5.08. 2014; MT. 1 ind; H1; 15-25.08.2014; MT. 24 inds; H2; 15-25.08.2014; MT. 1 ind; H3; 4-14.09.2014; MT.

Genus: *Scolytus* E.L. Geoffroy, 1762
Scolytus intricatus Ratzeburg, 1837
- GEORGIA • 1 ind; H3; 15-25.06.2014; MT.

Genus: *Taphrorychus* W.J. Eichhoff, 1878
Taphrorychus bicolor (Herbst, 1794)**
- GEORGIA • 1 ind; H3; 14.06-5.07.2014; FT; leg: IPT.

Genus: *Trachodes* E.F.Germar, 1823
Trachodes hystrix Gyllenhal, 1836*
- GEORGIA • 1 ind; H1; 3.05.2014; MT. 1 ind; H1; 5-15.05.2014; MT. 1 ind; H3; 5-15.05.2014; MT. 1 ind; H3; 25.05-4.06.2014; MT. 1 ind; H3; 4-14.06.2014; MT. 1 ind; H1; 15-25.06.2014; MT. 1 ind; H1; 15-25.08.2014; MT.

Genus: *Xyleborinus* E.Reitter, 1913
Xyleborinus saxesenii Ratzeburg, 1837**
- GEORGIA • 1 ind; H1; 5-15.05.2014; MT. 1 ind; H1; 15-25.05.2014; MT. 1 ind; H3; 14.06-5.07.2014; FT. leg: IPT.

Genus: *Xylechinus* F. Chapuis, 1869
Xylechinus pilosus (Ratzeburg, 1837)**
- GEORGIA • 1 ind; H1; 23.04-3.05.2014; MT. 1 ind; H1; 5-15.07.2014; MT.

Genus: *Xylosandrus* E. Reitter, 1913
Xylosandrus germanus (Blandford, 1894)*
- GEORGIA • 1 ind; H1; 5-15.05.2014; MT. 1 ind; H1; 15-25.05.2014; MT. 1 ind; H2; 25.05-4.06.2014; MT. 5 inds; H1; 5-15.07.2014; MT. 1 ind; H1; 5-15.08.2014; MT.

Family: **Dasytidae**
Genus: *Dasytes* Paykull, 1799
Dasytes niger (Linnaeus, 1760)**
- GEORGIA • 1 ind; H5; 5-15.05.2014; MT.

Family: **Elateridae**
Genus: *Ampedus* Dejean, 1833
Ampedus ochropterus Germar, 1844*
- GEORGIA • 1 ind; H3; 1.05-14.06.2014; FT. 3 inds; H3; 5-15.05.2014; MT.

A. pomorum (Herbst, 1784)*
- GEORGIA • 1 ind; H1; 23.04-3.05.2014; MT. 1 ind; H2; 4.05.2014; MT. 3 inds; H3; 1.05-14.06.2014; FT. leg: IPT. 1 ind; H1; 5-15.05.2014; MT. 1 ind; H3; 5-15.05.2014; MT. 1 ind; H3; 15-25.05.2014; MT.

A. sinuatus Germar, 1844*
- GEORGIA • 1 ind; H2; 1.05-14.06.2014; PT; leg: IPT.

A. wachtangi Dolin, 1970*
- GEORGIA • 1 ind; H3; 15-25.06.2014; MT.

Genus: *Anostirus* C.G.Thomson, 1859
Anostirus castaneus (Linnaeus, 1758)**
- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT.

Genus: *Brachygonus* du Buysson, 1912
Brachygonus cf. *frater* Wurst, 1995**
- GEORGIA • 1 ind; H3; 5-15.05.2014; MT.

Genus: *Cardiophorus* Eschscholtz, 1829
Cardiophorus kryzhanovskyi Dolin & Chantladze, 1980
- GEORGIA • 1 ind; H3; 4-14.06.2014; FT; leg: IPT.

Genus: *Denticollis* Piller & Mitterpacher, 1783
Denticollis parallelicollis (Aubé, 1850)
- GEORGIA • 1 ind; H2; 1.05-14.06.2014; PT; leg: IPT. 3 inds; H3; 1.05-14.06.2014; PT; leg: IPT. 1 ind; H3; 25.05-4.06.2014; MT.

Genus: *Hypoganus* Kiesenwetter, 1858
Hypoganus stepanovi Denisova, 1948*
- GEORGIA • 1 ind; H1; 25.05-4.06.2014; MT.

Genus: Lacon Laporte, 1838
Lacon punctatus (Herbst, 1779)
- GEORGIA • 1 ind; N41.84, E46.28; 30.04.2014; at night on snag; leg: JH.

Genus: *Melanotus* Eschscholtz, 1829
Melanotus castanipes (Paykull, 1800)*
- GEORGIA • 2 inds; H1; 3.05.2014; MT. 1 ind; H1; 5-15.05.2014; MT. 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT.

M. villosus (Geoffroy, 1785)*
- GEORGIA • 1 ind; H3; 4.05-14.06.2014; MT. 1 ind; H3; 25.05-4.06.2014; MT.

Genus: *Procraerus* Reitter, 1905
Procraerus carinifrons (Desbrochers des Loges, 1875)*
- GEORGIA • 1 ind; H3; 1.05-14.06.2014; FT; leg: IPT.

Family: **Endomychidae***
Genus: *Symbiotes* Philip, 1956
Symbiotes gibberosus (Lucas, 1846)**
- GEORGIA • 1 ind; H2; 4-14.06.2014; MT.

Family: **Erotylidae**
Genus: *Dacne* Latreille, 1797
Dacne semirufula (Reitter, 1897)*
- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT. 1 ind; H1; 5-15.07.2014; MT. 4 inds; 17-21.07.2019; leg: JB, AB, JP.

Genus: *Lycoperdina* Latreille, 1807
Lycoperdina succincta (Linnaeus, 1767)**
- GEORGIA • 1 ind; 17-21.07.2019; leg: AB.

Genus: *Triplax* Herbst, 1793*
Triplax aenea (Schaller, 1783)
- GEORGIA • 1 ind; 17-21.07.2019; leg: AB.

Triplax elongata Lacordaire, 1842**
- GEORGIA • 1 ind; 30.04.2014; at night on snag; HC; leg: JH.

Triplax rufipes (Fabricius, 1787)
- GEORGIA • 1 ind; H1; 15-25.06.2014; MT. 11 inds; 17-21.07.2019; HC; leg: JB, AB, JP.

Genus: *Tritoma* Fabricius, 1775
Tritoma bipustulata Fabricius, 1775
- GEORGIA • 1 ind; H1; 15-25.05.2014; MT.

Family: Eucnemidae*
Genus: *Dromaeolus* Kiesenwetter, 1858
Dromaeolus barnabita (Villa et Villa, 1838)**
- GEORGIA • 1 ind; H2; 25.05-4.06.2014; MT.

Genus: *Isorhipis* Boisduval & Lacordaire, 1835
Isorhipis nigriceps (Mannerheim, 1823)**
- GEORGIA • 14 inds; H1; 23.04-3.05.2014; MT. 4 inds; N41.84, E46.28; 30.04.2012; leg: RP. 6 inds; H3; 4-14.06.2014; FT; leg: IPT. 3 inds; H3; 1.05-14.06.2014; PT; leg: IPT. 3 inds; H2; 4.05.2014; MT. 12 inds; H1; 5-15.05.2014; MT. 6 inds; H2; 5-15.05.2014; MT. 5 inds; H3; 5-15.05.2014; MT. 3 inds; H1; 15-25.05.2014;

MT. 1 ind; H3; 25.05-4.06.2014; MT. 1 ind; H3; 15-25.06.2014; MT.

Genus: *Xylophilus* Mannerheim, 1823

Xylophilus leseigneuri Olexa, 1960**

- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT.

Family: Geotrupidae

Genus: *Odonteus* Samouelle, 1819*

O. armiger (Scopoli, 1772)**

- GEORGIA • 2 inds; 15-25.05.2014; HC; leg: GJ. 1 ind; 25.05-4.06.2014; HC; leg: GJ.

Genus: *Geotrupes* Latreille, 1797

Geotrupes olgae (Olsoufieff, 1918)*

- GEORGIA • 2 inds; 17-21.07.2019; HC; leg: JB, AB.

Family: Histeridae*

Genus: *Onthophilus* Leach, 1817

Onthophilus striatus (Forster, 1771)

- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT.

Genus: *Paromalus* Erichson, 1834

Paromalus flavicornis (Herbst, 1791)

- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT.

Family: Laemophlaeidae*

Genus: *Laemophloeus* Dejean, 1835

Laemophloeus monilis (Fabricius, 1787)

- GEORGIA • 1 ind; H3; 4-14.06.2014; FT; leg: IPT.

Family: Latridiidae*

Genus: *Cartodere* C.G.Thomson, 1859

Cartodere nodifer (Westwood, 1839)**

- GEORGIA • 1 ind; H1; 15-25.08.2014; MT.

Genus: *Corticaria* Marsham, 1802

Corticaria alleni Johnson, 1974**

- GEORGIA • 1 ind; H2; 5-14.07.2014; HC; FT.

Genus: *Corticarina* Reitter, 1880

Corticarina similata (Gyllenhal, 1827)*

- GEORGIA • 2 inds; H3; 1.05-14.06.2014; PT; leg: IPT. 1 ind; H3; 14.06-5.07.2014; FT; leg: IPT. 2 inds; H2; 5-14.07.2014; FT; leg: IPT.

Genus: *Enicmus* C.G.Thomson, 1859

Enicmus brevicornis (Mannerheim, 1844)

- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT.

Enicmus rugosus (Herbst, 1793)

- GEORGIA • 2 inds; H1; 23.04-3.05.2014; MT. 2 inds; H1; 5-15.05.2014; MT. 13 inds; H1; 1.05-14.06.2014; PT; leg: IPT. 3 inds; H2; 1.05-14.06.2014; FT; leg: IPT. 1 ind; H3; 14.06-5.07.2014; FT; leg: IPT. 24 inds; H2; 5-14.07.2014; FT; leg: IPT. 4 inds; H3; 14.07-5.08.2014; FT; leg: IPT.

Enicmus testaceus (Stephens, 1830)**

- GEORGIA • 1 ind; H2; 1.05-14.06.2014; FT; leg: IPT. 1 ind; H2; 5-14.07.2014; FT; leg: IPT.

Genus: *Latridius* Herbst, 1793

Latridius consimilis (Mannerheim, 1844)

- GEORGIA • 1 ind; H2; 5-14.07.2014; FT; leg: IPT.

L. hirtus Gyllenhal, 1827**

- GEORGIA • 2 inds; H1; 1.05-14.06.2014; PT; leg: IPT. 2 inds; H2; 5-14.07.2014; FT; leg: IPT. 2 inds; H3; 14.07-5.08.2014; FT; leg: IPT.

L. minutus (Linnaus, 1767)

- GEORGIA • 1 ind; H2; 5-14.07.2014; FT; leg: IPT.

L. porcatus (Herbst, 1793)**

- GEORGIA • 2 inds; H2; 5-14.07.2014; FT; leg: IPT.

Genus: *Melanophthalma* Motschoulsky, 1866

Melanophthalma taurica (Mannerheim, 1844)**

- GEORGIA • 3 inds; H1; 1.05-14.06.2014; PT; leg: IPT.

Genus: *Stephostethus* LeConte, 1878

Stephostethus alternans (Mannerheim, 1844)**

- GEORGIA • 2 inds; H1; 23.04-3.05.2014; MT.

Stephostethus angusticollis (Gyllenhal, 1827)*

- GEORGIA • 1 ind; H1; 5-15.05.2014; MT.

Family: Leiodidae*

Genus: *Anisotoma* Panzer, 1797

Anisotoma humeralis (Fabricius, 1793)**

- GEORGIA • 1 ind; H1; 12-23.04.2014; MT. 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT.

Genus: *Nemadus* C.G. Thomson, 1867

Nemadus colonoides (Kraatz, 1851)**

- GEORGIA • 1 ind; H4; 3.05.2014; MT. 1 ind; H3; 5-15.05.2014; MT. 1 ind; H1; 15-25.05.2014; MT. 3 inds; H3; 25.05-4.06.2014; MT. 1 ind; H3; 4-14.06.2014; MT. 2 inds; H1; 5-15.08.2014; MT. 2 inds; H1; 25.08-5.09.2014; MT. 1 ind; H1; 5-15.09.2014; MT. 2 inds; H1; 15-27.09.2014; MT.

Family: Lucanidae

Genus: *Dorcus* Macleay, 1819

Dorcus parallelipipedus (Linnaeus, 1758)

- GEORGIA • 1 ind; H1; 26.07-5.08.2014; MT. 6 inds; 30.05.2012; HC; leg: AB. 6 inds; 17-21.07.2019; HC; leg: AB.

Genus: *Lucanus* Scopoli, 1763

Lucanus cervus (Linnaeus, 1758)

- GEORGIA • 1 ind; H1; 25.06-5.07.2014; MT.

L. ibericus ibericus Motschulsky, 1845*

- GEORGIA • ind; 24.08.2011; HC; leg: GJ. 17 inds; 17-21.07.2019; HC; leg: JB, AB, JP.

Genus: *Platycerus* Geoffroy, 1762

Platycerus perplexus Gusakov, 2003**

- GEORGIA • 1 ind; H3; 2-12.04.2014; MT. 1 ind; H1; 12-23.04.2014; MT. 2 inds; H2; 12-23.04.2014; MT. 17 inds; H1; 3.05.2014; MT. 5 inds; H3; 9-15.05.2014; MT.

Genus: *Sinodendron* Hellwig, 1792

Sinodendron cylindricum (Linnaues, 1758)**

- GEORGIA • 1 ind; H3; 15-25.06.2014; MT.

Family: Lymexylidae*

Genus: *Hylecoetus* Latreille, 1806

Elateroides dermestoides (Linnaeus, 1761)**

- GEORGIA • 1 ind; H3; 15-25.05.2014; MT.

Family: Melandryidae*
Genus: *Melandrya* Fabricius, 1801
Melandrya caraboides (Linnaeus, 1760)
- GEORGIA • 2 inds; H1; 23.04-3.05.2014; MT. 3 inds; H1; 1-14.05.2014; PT; leg: IPT. 5 inds; H1; 5-15.05.2014; MT. 1 ind; H3; 5-15.05.2014; MT. 2 inds; H3; 4-14.06.2014; FT; leg: IPT.

Melandrya rufipes Gebler, 1829**
- GEORGIA • 1 ind; H1; 1-14.05.2014; PT; leg: IPT.

Genus: *Orchesia* Latreille, 1807
Orchesia undulata Kraatz, 1853
- GEORGIA • 1 ind; H1; 15-25.05.2014; MT. 2 inds; H2; 25.05-4.06.2014; MT. 1 ind; H3; 4-14.06.2014; FT; leg: IPT.

Genus: *Phloiotrya* Stephens, 1832
Phloiotrya tenuis (Hampe, 1850)
- GEORGIA • 3 inds; H3; 4-14.06.2014; FT; leg: IPT.

Family: Mordellidae*
Genus: *Tomoxia* Costa, 1853
Tomoxia bucephala Costa, 1854**
- GEORGIA • 6 inds; H1; 1.05-14.06.2014; PT; leg: IPT. 2 inds; H1; 15-25.05.2014; MT. 2 inds; H1; 25.05-4.06.2014; MT. 1 ind; H2; 25.05-4.06.2014; MT. 1 ind; H1; 25.06-5.07.2014; MT.

Family: Mycetophagidae*
Genus: *Eulagius* Motschulsky, 1845
Eulagius acernus Motschulsky, 1845
- GEORGIA • 2 inds; H1; 1.05-14.06.2014; PT; leg: IPT.

Genus: *Litargus* Erichson, 1846
Litargus connexus (Fourcroy, 1785)
- GEORGIA • 1 ind; H3; 22-23.04.2014; MT. 6 inds; H1; 1.05-14.06.2014; PT; leg: IPT. 1 ind; H1; 5-15.05.2014; MT. 1 ind; H3; 5-15.05.2014; MT. 2 inds; H3; 25.05-4.06.2014; MT. 1 ind; H3; 14.06-5.07.2014; MT. 1 ind; H1; 5-15.08.2014; MT.

Genus: *Mycetophagus* Hellwig, 1792
Mycetophagus ciscaucasicus (Semenov, 1899)
- GEORGIA • 1 ind; H1; 23.04-3.05.2014; MT. 1 ind; H3; 1.05-14.06.2014; PT; leg: IPT.

M. fulvicollis Fabricius, 1793
- GEORGIA • 1 ind; H2; 12-23.04.2014; MT. 1 ind; N41.84, E46.28; 30.05.2012; at night on snag; leg: JH.

M. quadripustulatus (Linnaeus, 1760)*
- GEORGIA • 1 ind; N41.84, E46.28, 30.05.2012; at night on fungi bodies, leg: TJ.

Family: Nitidulidae*
Genus: *Cychramus* Kugelann, 1794
Cychramus luteus (Fabricius, 1787)
- GEORGIA • 5 inds; H2; 1.05-14.06.2014; PT; leg: IPT.

Genus: *Cyllodes* Erichson, 1843*
Cyllodes ater (Fabricius, 1787)
- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT. 1 ind; 17-21.07.2019, leg: AB, det. TG;

Genus: *Epuraea* Erichson, 1843
Epuraea aestiva (Linnaeus, 1758)
- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT. 1 ind; H2; 1.05-14.06.2014; PT; leg: IPT.

E. melanocephala (Marsham, 1802)
- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT. 5 inds; H2; 1.05-14.06.2014; PT; leg: IPT. 1 ind; H3; 1.05-14.06.2014; PT; leg: IPT. 1 ind; H1; 3.05.2014; MT. 1 ind; H1; 5-15.05.2014; MT. 1 ind; H3; 5-14.07.2014; FT; leg: IPT.

E. pallescens (Stephens, 1835)
- GEORGIA • 2 inds; H2; 1.05-14.06.2014; PT; leg: IPT. 2 inds; H3; 1.05-14.06. 2014; PT; leg: IPT. 5 inds; H3; 5-14.07.2014; FT; leg: IPT.

Genus: *Glischrochilus* Reitter, 1873
Glischrochilus grandis (Tournier, 1872)
- GEORGIA • 1 ind; H1; 3.05.2014; MT.

Genus: *Ipidia* Erichson, 1843
Ipidia sexguttata (Sahlberg, 1834)
- GEORGIA • 1 ind; H3; 5-14.07.2014; FT; leg: IPT.

Genus: *Soronia* Erichson, 1843
Soronia grisea (Linnaeus, 1758)**
- GEORGIA • 1 ind; H3; 5-14.07.2014; FT; leg: IPT.

Family: Oedemeridae*
Genus: *Ischnomera* Stephens, 1832
Ischnomera coerulea (Linnaeus, 1758)
- GEORGIA • 2 inds; H3; 4-14.06.2014; FT; leg: IPT.

Family: Ptinidae*
Genus: *Caenocara* C.G.Thomson, 1859
Caenocara affine (Sturm, 1837)**
- GEORGIA • 1 ind; H1; 5-15.07.2014; MT.

C. subglobosum (Mulsant & Rey, 1864)**
- GEORGIA • 2 inds; H1; 5-15.07.2014; MT.

Genus: *Hedobia* Dejean, 1821
Hedobia pubescens (Olivier, 1790)**
- GEORGIA • 1 ind; H1; 2-12.04.2014; MT. 1 ind; H1; 23.04-3.05.2014; MT. 1 ind; H3; 5-15.05.2014; MT. 1 ind; H3; 1.05-14.06.2014; FT; leg: IPT.

Genus: *Hemicoelus* LeConte, 1861
Hemicoelus fulvicornis (Sturm, 1837)**
- GEORGIA • 1 ind; H3; 15-25.06.2014; MT.

Genus: *Hyperisus* Mulsant & Rey, 1863
Hyperisus plumbeum (Illiger, 1801)
- GEORGIA • 1 ind; H3; 4.05.2014; MT.

Genus: *Plumilus* White, 1974
Plumilus grandicollis (Ménétriés, 1832)**
- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT. 1 ind; H3; 14.06-5.07.2014; FTl leg: IPT.

Genus: *Ptinomorphus* Mulsant & Rey, 1868
Ptinomorphus rosti (Pic, 1896)**
- GEORGIA • 1 ind; H3; 14.06-5.07.2014; FT; leg: IPT. 1 ind; H3; 14.06-5.07.2014; FT; leg: IPT.

Genus: *Ptinus* Linnaeus, 1767
Ptinus biformis Reitter, 1880
- GEORGIA • 1 ind; H3; 1.05-14.06.2014; FT; leg: IPT.

P. swaneticus Reitter, 1906
- GEORGIA • 2 inds; H3; 15-25.06.2014; MT.

Genus: *Xestobium* Motschulsky, 1845
Xestobium rufovillosum (De Geer, 1774)**
- GEORGIA • 1 ind; H3; 5-15.05.2014; MT.

Family: Pyrochroidae*
Genus: *Pogonocerus* Fischer von Waldheim, 1812
Pogonocerus thoracicus Fischer von Waldheim, 1812**
- GEORGIA • 1 ind; H1; 15-25.06.2014; MT. 2 ind; H3; 15-25.06.2014; MT. 1 ind; H5; 15-25.06.2014; MT.

Genus: Pyrochroa Müller, 1764
Pyrochroa coccinea (Linnaeus, 1761)
- GEORGIA • 1 ind; H1; 5-15.05.2014; MT. 2 inds; H2; 5-15.05.2014; MT.

Family: Rhysodidae**
Genus: *Omoglymmius* Ganglbauer, 1891
Omoglymmius germari (Ganglbauer, 1892)
- GEORGIA • 1 ind; H3; 4-14.06.2014; FT; leg: IPT.

Family: Salpingidae*
Genus: *Salpingus* Illiger, 1801
Salpingus caucasicus Reitter, 1905**
- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT. 1 ind; H1; 3.05.2014; MT. 1 ind; H1; 15-27.09.2014; MT.

Family: Scarabaeidae
Genus: *Acanthobodilus* G. Dellacasa, 1983*
Acanthobodilus immundus (Creutzer, 1799)
- GEORGIA • 1 ind; N41.84, E46.28; 17-21.07.2019; leg: AB.

Genus: *Anomala* Samouelle, 1819*
Anomala dubia abchasica Motschulsky, 1854
- GEORGIA • 1 ind; N41.84, E46.28; 17-21.07.2019; leg: AB.

Genus: *Cetonia* Fabricius, 1775*
Cetonia aurata pallida (Drury, 1773)
- GEORGIA • 10 inds; 24.08.2011; HC; leg: GJ. 1 ind; H3; 15-25.05.2014; MT. 7 inds; N41.84, E46.28; 17-21.07.2019; leg: AB.

Genus: *Euoniticellus* Janssens, 1953*
Euoniticellus fulvus (Goeze, 1777)
- GEORGIA • 2 inds; N41.84, E46.28; 17-21.07.2019; leg: AB.

Genus: *Maladera* Mulsant & Rey, 1871
Maladera castanea (Arrow, 1913)**
- GEORGIA • 3 inds; N41.84, E46.28; 17-21.07.2019; leg: AB.

Maladera punctatissima (Faldermann, 1835)
- GEORGIA • 2 inds; H1; 15-25.05.2014; HC; leg: GJ. 2 inds; N41.84, E46.28; 17-21.07.2019; leg: AB.

Genus: *Onthophagus* Latreille, 1802*
Onthophagus coenobita (Herbst, 1783)
- GEORGIA • 4 inds; N41.84, E46.27; 17-21.07.2019; leg: AB.

Onthophagus taurus (Schreber, 1759)
- GEORGIA • 2 inds; N41.84, E46.27; 17-21.07.2019; leg: AB.

Genus: *Oryctes* Hellwig, 1798*
Oryctes nasicornis latipennis Motschulsky, 1845
- GEORGIA • 3 inds; N41.84, E46.28; 17-21.07.2019; leg: JB, AB.

Genus: *Polyphylla* Harris, 1841*
Polyphylla fullo (Linnaeus, 1758)
- GEORGIA • 2 inds; 24.08.2011; HC; leg: GJ.

Polyphylla olivieri (Laporte, 1840)
- GEORGIA • 1 ind; 41.84, 46.27; 17-21.07.2019; leg: AB.

Genus: *Protaetia* Burmeister, 1842
Protaetia affinis pseudospeciosa (Medvedev, 1964)*
- GEORGIA • 1 ind; 41.84, 46.27; 17-21.07.2019; leg: JB.

Protaetia speciosa speciosa (Adams, 1817)
- GEORGIA • 1 ind; 41.84, 46.27; 17-21.07.2019; leg: AB.

Family: Silvanidae*
Genus: *Uleiota* Latreille, 1797
Uleiota planatus (Linnaeus, 1761)
- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT. 1 ind; H1; 5-14.09.2014; MT.

Family: Sphindidae**
Genus: *Aspidiphorus* Dejean, 1821
Aspidiphorus lareyniei Jacquelin du Val, 1859
- GEORGIA • 1 ind; H1; 5-15.07.2014; MT.

A. orbiculatus (Gyllenhal, 1808)
- GEORGIA • 3 inds; H2; 4-14.06.2014; MT. 1 ind; H1; 15-25.07.2014; MT. 1 ind; H1; 25.08-5.09.2014; MT.

Family: Staphylinidae
Genus: *Gyrophaena* Mannerheim, 1831
Gyrophaena fasciata (Marsham, 1802)*
- GEORGIA • 1 ind; H1; 15-25.05.2014; MT.

Genus: *Lordithon* C.G.Thomson, 1859
Lordithon trinotatus (Erichson, 1839)
- GEORGIA • 1 ind; H3; 25.05-4.06.2014; MT.
- Previously recorded by Japoshvili and Khachikov (2020).

Family: Tenebrionidae
Genus: *Corticeus* Piller & Mitterpacher, 1783
Corticeus unicolor Piller et Mitterpacher, 1783
- GEORGIA • 1 ind; H1; 1.05-14.06.2014; PT; leg: IPT.

C. bicolor (Olivier, 1790)
- GEORGIA • 1 ind; H3; 1.05-14.06.2014; FT; leg: IPT.

C. suberis (Lucas, 1864)*
- GEORGIA • 2 ind; H3; 1.05-14.06.2014; FT; leg: IPT.

Genus: *Cryphaeus* Klug, 1833
Cryphaeus cornutus (Fisher von Waldheim, 1823)
- GEORGIA • 1 ind; H3; 1.05-14.06.2014; FT; leg: IPT.

Genus: *Diaclina* Jacquelin du Val, 1861
Diaclina testudinea (Piller et Mitterpacher, 1783)
- GEORGIA • 1 ind; N41.84, E46.28; 30.04.2014; at night on snag; leg: JH.

Genus: *Diaperis* Geoffroy, 1762
Diaperis boleti (Linnaeus, 1758)**
- GEORGIA • 65 inds; 30.05.2012; at night on fungi (Fig. 1F); HC; leg: TJ.

Genus: *Lagria* Fabricius, 1775
Lagria hirta (Linnaeus, 1758)*
- GEORGIA • 3 inds; H1; 15-25.06.2014; MT. 3 inds; H1; 5-14.09.2014; MT.

Genus: *Metaclisa* Jacquelin du Val, 1861
Metaclisa azurea (Waltl, 1838)
- GEORGIA • 14 inds; N41.84, E46.28; 17-21.07.2019; leg: JB, AB, JP.

Genus: *Neatus* LeConte, 1862*
Neatus subaequalis Reitter, 1920**
- GEORGIA • 8 inds; N41.84, E46.28; 17-21.07.2019; leg: JB, AB, JP.

Genus: *Neomida* Latreille, 1829
Neomida quadricornis (Motschulsky, 1873)
- GEORGIA • 1 ind; N41.84, E46.28; 17-21.07.2019; leg: JB.

Genus: *Platydema* Laporte & Brullé, 1831
Platydema tristis Laporte & Brullé, 1831
- GEORGIA • 6 inds; N41.84, E46.28; 17-21.07.2019; leg: JB, AB, JP.

Family: **Throscidae****
Genus: *Aulonothroscus* Horn, 1890
Aulonothroscus brevicollis (Bonvouloir, 1859)
- GEORGIA • 1 ind; H1; 23.04-3.05.2014; MT. 1 ind; H1; 15-25.05.2014; MT. 1 ind; H3; 4-14.09.2014; MT.

Genus: *Trixagus* Kugelann, 1794
Trixagus dermestoides (Linnaeus, 1767)
- GEORGIA • 1 ind; H1; 23.04-3.05.2014; MT. 1 ind; H1; 5-15.05.2014; MT.

Family: **Thymalidae****
Genus: *Thymalus* Latreille, 1802
Thymalus aubei Léveillé, 1877
- GEORGIA • 1 ind; N41.84, E46.28; 17-21.07.2019; leg: AB.

Family: **Trogossitidae***
Genus: *Nemozoma* Latreille, 1804
Nemozoma cornutum Sturm, 1826**
- GEORGIA • 1 ind; N41.84, E46.28; 1.05.2014; leg: RP. 3 inds; H3; 1.05-14.06.2014; FT; leg: IPT.

Genus: *Tenebroides* Piller & Mitterpacher, 1783
Tenebroides mauritanicus (Linnaeus, 1758)**
- GEORGIA • 1 ind; H3; 4-14.06.2014; FT; leg: IPT.

- TThe species is enlisted in Georgian Biodiversity Database (Tarkhnishvili and Chaladze 2022), whithout indication of voucher deposition or locality data.

Family: **Zopheridae***
Genus: *Bitoma* Herbst, 1793
Bitoma crenata (Fabricius, 1775)
- GEORGIA • 1 ind; N41.84, E46.28; 30.04.2014; at night on snag; leg: JH; 1 ind; H1; 23.04-3.05.2014; MT. 1 ind; H1; 5-15.05.2014; MT.

Genus: *Colydium* Fabricius, 1793
Colydium filiforme Fabricius, 1793
- GEORGIA • 1 ind; 30.04.2014; at night on snag; HC; leg: JH.

Genus: *Endophloeus* Dejean, 1834
Endophloeus exculptus Germar, 1847
- GEORGIA • 8 inds; N41.84, E46.28; 30.04.2014; at night on snag; leg: JH. 4 inds; N41.84, E46.28; 30.04.2014; leg: RP.

Genus: *Pycnomerus* Erichson, 1842
Pycnomerus terebrans (Oliver, 1790)**
- GEORGIA • 6 inds; N41.84, E46.28; 30.04.2014; at night on snag; leg: JH; 1 ind; N41.84, E46.28; 1.05.2014; leg: RP.

Genus: *Synchita* Hellwig, 1792
Synchita mediolanensis Villa et Villa, 1833**
- GEORGIA • 1 ind; 30.04.2014; at night on snag; HC; leg: JH.

Synchita separanda (Reitter, 1882)**
- GEORGIA • 2 inds; N41.84, E46.28; 30.04.2014; at night on snag; leg: JH.

Synchita undata (Guérin-Méneville, 1844)**
- GEORGIA • 3 inds; H3; 1.05-14.06.2014; FT; leg: IPT.

Summary

During this survey, 195 species of coleopterans, belonging to 42 families and 172 genera, have been recorded from Lagodekhi Protected Areas. Thirty families are recorded for the first time from the studied area, three of which, Rhysodidae, Sphindidae, and Thymalidae, are new family records for Georgia. One hundred fifty-seven species are new to LPA and 66 of them are new country records. Given the high landscape and habitat diversity of LNP and Georgia, this study can be considered as a snapshot of coleopteran diversity even for LNP. Thus, it can be expected that further research will yield many new species for LNP and Georgia as a whole.

Acknowledgements

The work of the first author was supported by the Shota Rustaveli National Science National Foundation under grant #FR/221/7-110/13. We thank the administration and staff of Lagodekhi protected areas and give special thanks to its director Mr Giorgi Sulamanidze, for his help and assistance during this project. We are grateful to the editor (Levan Mumladze) for extensive revision of the manuscript. Samples were collected under a permit (KA060264272737314, number 892) issued by the Georgian Agency of Protected Areas.

დასკვნა

ნაშრომში წარმოდგენილია ხეშეშფრთიანების კვლევის შედეგები ლაგოდეხის დაცული ტერიტორიებიდან. შეგროვებულ იქნა 42 ოჯახის 195 სახეობა, რომლებიც 172 გვარში არიან გადანაწილებული. 30 ოჯახი და 157 სახეობის

ხოჭო საკვლევი ტერიტორიისათვის პირველადაა აღრიცხული, რომელთაგანაც 3 ოჯახი Rhysodidae, Sphindidae და Thymalidae და 66 სახეობა ახალია საქართველოს ფაუნისათვის.

References

APA (2016) Lagodekhi Protected Areas. http://apa.gov.ge/en [Accessed 09 Mar 2022]

GBIF (2022) Global Biodiversity Information Facility. https://www.gbif.org [Accessed 9 Mar 2022]

Chantladze T (2000) The catalogue of clickbeetles (Coleoptera: Elateridae) of Georgia. Proceedings of the Institute of Zoology 20: 173–179.

Chodubski A (1982) Ludwik Młokosiewicz (1831–1909) – pionier badań flory i fauny Kaukazu. Kwartalnik Historii Nauki i Techniki 27(2): 421–428. [In Polish]

Cholokava A (2008) The weevil beetles (Bhychitidae, Attelabidae, Apionidae, Nopophydae, Dryophthoridae, Curculionidae) of Georgia. Proceedings of the Institute of Zoology 23: 77–123.

Cholokava A, Zarkua Z, Khubutia J, Javelidze I (2002) The Georgian fauna weevil beetles from subfamily Cleoninae (Coleoptera: Curculionidae). Proceedings of the Institute of Zoology 21: 117–130.

Danilevsky M (2020) Catalogue of Palaearctic Coleoptera. Vol. 6/1. Updated and Revised Second Edition. Chrysomeloidea I (Vesperidae, Disteniidae, Cerambycidae). Brill, Leiden, 712 pp. https://doi.org/10.1163/9789004440333

Gul Aslan E, Mumladze L, Japoshvili G (2017) List of leaf beetles (Coleoptera: Chrysomelidae) from Lagodekhi reserve with new records for Transcaucasia and Georgia. Zootaxa 4277(1): 86–98. https://doi.org/10.11646/zootaxa.4277.1.6

Iwan D, Löbl I [Eds] (2020) Catalogue of Palaearctic Coleoptera, Vol. 5. Tenebrionoidea. Revised and Updated Second Edition. Brill, Leiden, 945 pp. https://doi.org/10.1163/9789004434998

Jambazishvili M (2000) The catalogue of darkling beetles (Coleoptera: Tenebrionidae) of Georgia. Proceedings of the Institute of Zoology 20: 185–193.

Japoshvili G (2017) New records of Encyrtids (Hymenoptera: Chalcidoidea: Encyrtidae) from Georgia, with description of seven new species. Journal of Asia-Pacific Entomology 20: 866–877. https://doi.org/10.1016/j.aspen.2017.06.006

Japoshvili G (2022) New data on some microhymenopteran families from Lagodekhi Protected Area, with new records for Georgia (Sakartvelo) and the Caucasus. Caucasiana 1: 7–11. https://doi.org/10.3897/caucasiana.1.e81647

Japoshvili G, Gordiashvili N, Injia S, Tsiklauri Kh, Sulamanidze G (2022) Updated annotated checklist of insects from Lagodekhi protected areas, Sakartvelo (Georgia). Munis Entomology and Zoology 17(2): 793–861.

Japoshvili G, Khachikov E (2020) List of Staphylinids of Lagodekhi Reserve with some new records from Sakartvelo (Georgia). Zootaxa 4767(3): 495–500. https://doi.org/10.11646/zootaxa.4767.3.9

Javelidze I, Cholokava A, Cholokava I (2002) The main harmful copricorn beetles (Coleoptera: Cerambycidae) of Arboreal leaf-bearing plants (Oak, Beech, Chestnut and oth.) of Georgian forest. Proceedings of the Institute of Zoology 21: 130–136.

Kobakhidze D (1956) The materials to study entomofauna of Lagodekhi National Reserve. Proceedings of the Institute of Zoology 14: 189–215. [In Georgian]

Löbl I, Löbl D (2015) Catalogue of Palaearctic Coleoptera. Hydrophiloidea–Staphylinoidea, Vol. 2 – Revised and updated edition. Brill, Leiden, 1702 pp. https://doi.org/10.1163/9789004296855

Löbl I, Löbl D (2016) Catalogue of Palaearctic Coleoptera. Scarabaeoidea, Scirtoidea, Dascilloidea, Buprestoidea and Byrrhoidea, Vol. 3 – Revised and updated edition. Brill, Leiden, 983 pp. https://doi.org/10.1163/9789004309142

Löbl I, Löbl D (2017) Catalogue of Palaearctic Coleoptera – Archostemata-Myxophaga-Adephaga, Vol. 1 – Revised and updated edition. Brill, Leiden, 1443 pp.

Löbl I, Smetana A (2006) Catalogue of Palaearctic Coleoptera, Vol. 3 – Scarabaeoidea, Scirtoidea, Dascilloidea, Buprestoidea, Byrrhoidea. Apollo Books, Stenstrup, 690 pp.

Löbl I, Smetana A (2007) Catalogue of Palaearctic Coleoptera, Vol. 4 – Elateroidea, Derodontoidea, Bostrichoidea, Lymexyloidea, Cleroidea, Cucujoidea. Apollo Books, Stenstrup, 935 pp. https://doi.org/10.1163/9789004260894

Löbl I, Smetana A (2011) Catalogue of Palaearctic Coleoptera, Vol. 7– Curculionoidea I. Apollo Books, Stenstrup, 373 pp. https://doi.org/10.1163/9789004260931

Löbl I, Smetana A (2013) Catalogue of Palaearctic Coleoptera, Vol. 8– Curculionoidea II. Brill, Leiden, 700 pp. https://doi.org/10.1163/9789004259164

Merkviladze M, Kvavadze E (2002) List of ladybirds (Coleoptera: Coccinellidae) of Georgia. Proceedings of the Institute of Zoology 21: 149–155.

Mumladze L, Ulrich W, Asanidze Z, Japoshvili G (2017) An inverse elevational species richness gradient of Caucasian vascular plants and Encyrtidae (Hymenoptera, Chalcidoidea). Écoscience 24(1–2): 75–79. https://doi.org/10.1080/11956860.2017.1324717

Reck N, Chaladze G (2004) Checklist of the ground beetles (Coleoptera: Carabidae) of Georgia. Proceedings of the Institute of Zoology 22: 127–157.

Riedel M, Diller E, Japoshvili G (2018) The Ichneumonid fauna (Hymenoptera: Ichneumonidae) of Lagodekhi Reserve, Sakartvelo (Georgia), with descriptions of four new species. Linzer biologische Beiträge 50/2: 1447–1507.

Tarkhnishvili D, Chaladze G (2013) Georgian Biodiversity Database. http://www.biodiversity-georgia.net [Accessed 29 Mar 2022]